CLAIMS

I claim:

1.   A method of emulating human decision making, comprising:

(a) establishing a possibility set comprising a plurality of alternative possibilities, each having a distinguishing attribute;

(b) establishing a query set comprising a query;

(c) relating the query to each alternative in the possibility set using a set of primary bias values provided by an expert having knowledge of the alternatives, wherein each primary bias value is associated with a particular alternative, and reflects the expert's conception, based on the distinguishing attribute, of the relative degree of predictive value of the query for the particular alternative relative to other alternatives in the possibility set;

(d) obtaining a response to the query;

(e) determining, based on the response to the query and the set of primary bias values, a set of corresponding secondary bias values, wherein each secondary bias value is associated with a particular alternative, and reflects the expert's conception of the relative degree of predictive value of the query for the particular alternative relative to other alternatives in the possibility set; and

(f) ranking the alternatives in the possibility set, based on the secondary bias values, to provide a decision comprising the set of alternatives, ranked according to likelihood.

2.   The method of claim 1, wherein determining the set of secondary bias values involves increasing, decreasing or conserving the corresponding primary bias values based on the response to the query.

3.   The method of claim 1, wherein the query set comprises a plurality of queries, and wherein ranking the alternatives in the possibility set involves summing and averaging of the primary or secondary bias values.

4.   The method of claim 1, wherein determining a set of corresponding secondary bias values, and ranking the alternatives in the possibility set is achieved by using an ELICIT™ "Algorithm 42" core algorithm to process one or more of the primary or secondary bias values.

5.   The method of claim 1, wherein the possibility set is a set of alternate medical diagnoses, wherein the expert is a medical expert, and wherein ranking the alternatives in the possibility set, based on the secondary bias values, provides a diagnosis comprising the set of alternate medical diagnoses, ranked according to likelihood.

6.   A process for emulating human decision making on a computer having a processor and a storage device connected to the processor, comprising:

(a) configuring, in one or a plurality of electronic data bases stored in the storage device of the computer, a possibility set comprising a plurality of alternative possibilities, a query set

comprising a query, and a set of primary bias values provided by an expert having knowledge of the alternatives, wherein each primary bias value is associated with a particular alternative, and reflects the expert's conception of the relative degree of predictive value of the query for the particular alternative relative to other alternatives in the possibility set;

(b) inputting a user's response to the query into the computer; and

(c) ranking, using a program stored on the storage device that is operative with the processor to receive and process the user's response, the set of alternative possibilities according to relative likelihood, based at least in part on the set of primary bias values, whereby a decision, comprising the set of ranked alternatives, is provided.

7. The process of claim 6, wherein ranking the set of alternative possibilities comprises querying the electronic data bases to determine, based on the response to the query and the set of primary bias values, a set of corresponding secondary bias values, wherein each secondary bias value is associated with a particular alternative, and reflects the expert's conception of the relative degree of predictive value of the query for the particular alternative relative to other alternatives in the possibility set.

8. The process of claim 7, wherein determining the set of secondary bias values involves increasing, decreasing or conserving the corresponding primary bias values based on the response to the query.

9. The process of claim 7, wherein the query set comprises a plurality of queries, and wherein ranking the alternatives in the possibility set involves summing and averaging of the primary or secondary bias values.

10. The process of claim 7, wherein determining a set of corresponding secondary bias values, and ranking the alternatives in the possibility set is achieved by using an ELICIT™ "Algorithm 42" core algorithm to process one or more of the primary or secondary bias values.

11. The process of claim 6, wherein the possibility set is a set of alternate medical diagnoses, wherein the expert is a medical expert, and wherein ranking the alternatives in the possibility set, based on the primary bias values, provides a diagnosis comprising the set of alternate medical diagnoses, ranked according to likelihood.

12. A computer apparatus for facilitating emulation of human decision making, comprising:

(a) a computer comprising a processor and a storage device connected to the processor;

(b) a possibility set database stored on the storage device, wherein the possibility set database comprises a plurality of alternative possibilities;

(c) a query set database stored on the storage device, wherein the query set database comprises a query;

(d) a primary bias value data set stored on the storage device, wherein the primary bias values are provided by an expert having knowledge of the alternative possibilities, and wherein each primary bias value is associated with a particular alternative, and reflects the expert's conception of the relative degree of predictive value of the query for the particular alternative relative to other alternatives in the possibility set; and

(e) a program stored on the storage device for controlling the processor, wherein (i) the program is operative with the processor to receive a user's response to a query, (ii) determine, based on the response to the query and the set of primary bias values, a set of corresponding secondary bias values, wherein each secondary bias value is associated with a particular alternative, and reflects the expert's conception of the relative degree of predictive value of the query for the particular alternative relative to other alternatives in the possibility set, (iii) rank the alternatives in the possibility set, based on the secondary bias values, to provide a decision comprising the set of alternative possibilities, ranked according to likelihood, and (iv) present the decision to the user.

13. The apparatus of claim 12, further comprising a user database stored on the storage device, wherein the program is operative with the processor to store user information in the user database, and update user information when new user information is received.

14. The apparatus of claim 12, wherein the program is further operative with the processor to track user information.

15. A process for emulating human decision making over a wide-area network, comprising:

(a) configuring, in one or a plurality of electronic data bases of a server, a possibility set comprising a plurality of alternative possibilities, a query set comprising a query, and a set of primary bias values provided by an expert having knowledge of the alternatives, wherein each primary bias value is associated with a particular alternative, and reflects the expert's conception of the relative degree of predictive value of the query for the particular alternative relative to other alternatives in the possibility set;

(b) inputting a user's response to the query into a computer through a user subsystem;

(c) transmitting the user's response to the server over the wide-area network;

(d) ranking, using a program that is operative with a processor of the server to receive and process the user's response, the set of alternative possibilities according to relative likelihood, based at least in part on the set of primary bias values; and

(e) transmitting the ranked set of alternative possibilities to the user subsystem over the wide-area network, whereby a decision, comprising the set of ranked alternatives, is provided.

16. The process of claim 15, wherein ranking the set of alternative possibilities comprises querying the electronic data bases of the server to determine, based on the response to

the query and the set of primary bias values, a set of corresponding secondary bias values, wherein each secondary bias value is associated with a particular alternative, and reflects the expert's conception of the relative degree of predictive value of the query for the particular alternative relative to other alternatives in the possibility set.

17.   The method of claim 16, wherein determining the set of secondary bias values involves increasing, decreasing or conserving the corresponding primary bias values based on the response to the query.

18.   The method of claim 16, wherein the query set comprises a plurality of queries, and wherein ranking the alternatives in the possibility set involves summing and averaging of the primary or secondary bias values.

19.   The process of claim 16, wherein determining a set of corresponding secondary bias values, and ranking the alternatives in the possibility set is achieved by using an ELICIT^{TM} "Algorithm 42" core algorithm to process one or more of the primary or secondary bias values.

20.   The process of claim 15, wherein the possibility set is a set of alternate medical diagnoses, wherein the expert is a medical expert, and wherein ranking the alternatives in the possibility set, based on the primary bias values, provides a diagnosis comprising the set of alternate medical diagnoses, ranked according to likelihood.

21.   A computer network apparatus for facilitating emulation of human decision making, comprising:

(a) a server comprising a processor and a storage device connected to the processor;

(b) a possibility set database stored on the storage device, wherein the possibility set database comprises a plurality of alternative possibilities;

(c) a query set database stored on the storage device, wherein the query set database comprises a query;

(d) a primary bias value data set stored on the storage device, wherein the primary bias values are provided by an expert having knowledge of the alternative possibilities, and wherein each primary bias value is associated with a particular alternative, and reflects the expert's conception of the relative degree of predictive value of the query for the particular alternative relative to other alternatives in the possibility set; and

(e) a program stored on the storage device for controlling the processor, wherein (i) the program is operative with the processor to receive, from a user subsystem, a user's response to a query, (ii) determine, based on the response to the query and the set of primary bias values, a set of corresponding secondary bias values, wherein each secondary bias value is associated with a particular alternative, and reflects the expert's conception of the relative degree of predictive value of the query for the particular alternative relative to other alternatives in the possibility set, (iii) rank the alternatives in the possibility set, based on the secondary bias values, to provide a

decision comprising the set of alternative possibilities, ranked according to likelihood, and (iv) transmit the decision to the user subsystem.

22.   The apparatus of claim 21, further comprising a user database stored on the storage device, wherein the program is operative with the processor to store user information in the user database, and update user information when new user information is received.

23.   The apparatus of claim 21, wherein the program is further operative with the processor to track user information.